

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

Claim 1 (currently amended): A method of detection of oxidation of carbon-containing fibers or fiber-bundles in composites which are fiber-reinforced C/SiC materials in which carbon fibers or graphite fibers are present in a ceramic matrix comprising predominantly SiC and Si, using the eddy current method, wherein the said composites comprise consist of carbon or graphite carbon-containing fibers or fiber bundles and a non-conducting or semi-conducting ceramic matrix, and wherein the said fibers or fiber bundles are electrically conducting short fibers isolated by the said non-conducting or semiconducting ceramic matrix such that there is no skin effect upon electrical induction, comprising applying an alternating magnetic field to the composite, the eddy current generated within the fibers causing a signal which is markedly different for oxidated fibers and non-oxidated fibers.

Claim 2 (previously presented): The method of claim 1, wherein an eddy current is generated in the fibers of a body made of a composite as claimed in claim 1 in which the said non-conducting or semi-conducting ceramic matrix is present in at least a surface layer of the said body.

Claim 3 (previously presented): The method of claim 2, wherein the eddy current is generated in the fibers of the said body in which the ceramic matrix is at least the

surface layer comprises SiC as main constituent and Si and/or Si alloys as further phases.

Claim 4 (currently amended): The method of claim 1, wherein the eddy current is generated in the fibers of a composite in which the carbon-containing fibers are short fibers having a diameter of from 5 µm to 12 µm, and a length of from 0.1 mm to 30 mm comprise carbon fibers, graphite fibers or fibers comprising one or more of the elements Si, B, C, N, Ti or P and/or fibers coated with carbon.

Claim 5 (original): The method of claim 1, wherein the eddy current is generated in the fibers of a composite, comprising measuring the signal in a configuration where an induction coil (1) and a testing coil (4) are arranged on the same side of a shaped body (2) made of the composite.

Claim 6 (original): The method of claim 1, wherein the eddy current is generated in the fibers of a composite material that can be subjected to high thermal load.